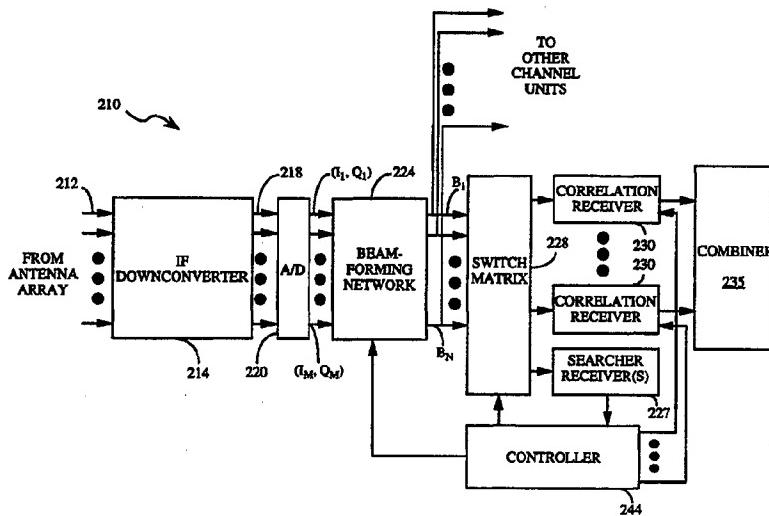




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(54) Title: ADAPTIVE SECTORIZATION IN A SPREAD SPECTRUM COMMUNICATION SYSTEM



(57) Abstract

A system and method for adaptively sectorizing channel resources within a digital cellular communication system. The system utilizes an antenna array for providing at least first and second electromagnetic beams for receiving a first information signal transmitted by a specific one of a plurality of users (22), thereby generating first and second received signals. A first set of beam-forming signals are then generated from the first and second received signals by a beam-forming network (224) and a switch matrix (228). Demodulating receivers (230) are provided for demodulating at least first and second beam-forming signals included within the first set of beam-forming signals, thereby producing first and second demodulated signals. The system further includes a tracking network (240) for tracking multipath information signals, received from various positions and angles of incidence.